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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,037	07/26/2000	ALES PODGORNIK	P65728US0	4337

136 7590 12/26/2001

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WASHINGTON, DC 20004

EXAMINER
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THERKORN, ERNEST G

ART UNIT	PAPER NUMBER
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1723

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DATE MAILED: 12/26/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/601037

Applicant(s)

PODGORNIAK

Examiner

THEERKORN

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on July 26, 2000 and August 31, 2000.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some\* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO 892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO 948)
- 17) ☒ Information Disclosure Statement(s) (PTO 1449) Paper No(s). 3
- 18) ☐ Interview Summary (PTO 413) Paper No(s).
- 19) ☐ Notice of Informal Patent Application (PTO 152)
- 20) ☐ Other:

Art Unit: 1723

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. "Such as", "preferably", and "etc." are considered to render the claim indefinite.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. "Chromatographic unit" lacks antecedent basis.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12, 14, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josic (WO 96/06158) in view of Frechet (5,728,457) and Afevan (U.S. Patent No. 5,019,270). At best, the claims differ from Josic (WO 96/06158) in reciting use of two components and use of a multimodal pore size distribution. Frechet (5,728,457) (column 2, lines 22-34 and column 6, lines 7-25) discloses that it is advantageous to have steps of different

Art Unit: 1723

chemical composition. Afeyan (U.S. Patent No. 5,019,270) (column 16, lines 3-18 and column 7, lines 46-50) discloses that use of a multimodal pore structure in a membrane-like structure increases surface area. It would have been obvious to use two components and a multimodal pore structure in Josic (WO 96/06158) because Frechet (5,728,457) (column 2, lines 22-34 and column 6, lines 7-25) discloses that it is advantageous to have steps of different chemical composition and Afeyan (U.S. Patent No. 5,019,270) (column 16, lines 3-18 and column 7, lines 46-50) discloses that use of a multimodal pore structure in a membrane-like structure increases surface area.

Claims 13, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josic (WO 96/06158) in view of Frechet (5,728,457) and Afeyan (U.S. Patent No. 5,019,270) as applied to claims 1-12, 14, 18, and 20 above, and further in view of Litle (U.S. Patent No. 3,483,990). At best, the claims differ from Josic (WO 96/06158) in view of Frechet (5,728,457) and Afeyan (U.S. Patent No. 5,019,270) in reciting use of a helical distributor. Litle (U.S. Patent No. 3,483,990) (column 5, line 70-column 6, line 2) discloses that use of a helical distributor provides improved characteristics. It would have been obvious to use a helical distributor in Josic (WO 96/06158) in view of Frechet (5,728,457) and Afeyan (U.S. Patent No. 5,019,270) because Litle (U.S. Patent No. 3,483,990) (column 5, line 70-column 6, line 2) discloses that use of a helical distributor provides improved characteristics.

Claims 13 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josic (WO 96/06158) in view of Frechet (5,728,457) and Afeyan (U.S. Patent No. 5,019,270) as

Art Unit: 1723

applied to claims 1-12, 14, 18, and 20 above, and further in view of Litle (U.S. Patent No. 3,483,990). At best, the claims differ from Josic (WO 96/06158) in view of Frechet (5,728,457) and Afeyan (U.S. Patent No. 5,019,270) in reciting a perpendicular bore and a groove for an O-ring. Litle (U.S. Patent No. 3,483,990) (column 3, line 74-column 4, line 5) discloses a perpendicular bore allows connection to a helical path. Litle (U.S. Patent No. 3,483,990) (column 3, lines 55-59) discloses that annular grooves secure O-rings. It would have been obvious to use a perpendicular bore and a groove for an O-ring in Josic (WO 96/06158) in view of Frechet (5,728,457) and Afeyan (U.S. Patent No. 5,019,270) because Litle (U.S. Patent No. 3,483,990) (column 3, line 74-column 4, line 5) discloses a perpendicular bore allows connection to a helical path and because Litle (U.S. Patent No. 3,483,990) (column 3, lines 55-59) discloses that annular grooves secure O-rings.

Claims 15, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josic (WO 96/06158) in view of Frechet (5,728,457), Litle (U.S. Patent No. 3,483,990), and Afeyan (U.S. Patent No. 5,019,270) as applied to claims 13, 17, and 19 above, and further in view of Saxena (U.S. Patent No. 4,627,918). At best, the claims differ from Josic (WO 96/06158) in view of Frechet (5,728,457), Litle (U.S. Patent No. 3,483,990), and Afeyan (U.S. Patent No. 5,019,270) in reciting a perpendicular bore and a groove for an O-ring. Saxena (U.S. Patent No. 4,627,918) (column 4, lines 55-67) discloses a perpendicular bore allows connection to an annular channel. Saxena (U.S. Patent No. 4,627,918) (column 5, lines 23-25) discloses an annular groove allows positioning of O-rings. It would have been obvious to use a perpendicular

Art Unit: 1723

bore and a groove for an O-ring in Josic (WO 96/06158) in view of Frechet (5,728,457), Litle (U.S. Patent No. 3,483,990), and Afeyan (U.S. Patent No. 5,019,270) because Saxena (U.S. Patent No. 4,627,918) (column 4, lines 55-67) discloses a perpendicular bore allows connection to an annular channel and Saxena (U.S. Patent No. 4,627,918) (column 5, lines 23-25) discloses an annular groove allows positioning of O-rings.

Claims 17 and 19 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Litle (U.S. Patent No. 3,483,990). The claims are considered to read on Litle (U.S. Patent No. 3,483,990). However, if a difference exists between the claims and Litle (U.S. Patent No. 3,483,990), it would reside in optimizing the elements of Litle (U.S. Patent No. 3,483,990). It would have been obvious to optimize the elements of Litle (U.S. Patent No. 3,483,990) to enhance separation.

Claim 18 is rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Saxena (U.S. Patent No. 4,627,918). The claim is considered to read on Saxena (U.S. Patent No. 4,627,918). However, if a difference exists between the claim and Saxena (U.S. Patent No. 4,627,918), it would reside in optimizing the elements of Saxena (U.S. Patent No. 4,627,918). It would have been obvious to optimize the elements of Saxena

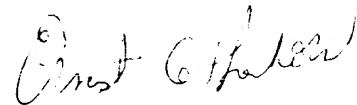
Application/Control Number: 09/601,037

Page 6

Art Unit: 1723

(U.S. Patent No. 4,627,918) to enhance separation.

Any inquiry concerning this communication should be directed to E. Therkorn at  
telephone number (703) 308-0362.



**Ernest G. Therkorn**  
**Primary Examiner**  
**Art Unit 1723**

EGT/12  
December 20, 2001